

Amendments to the Specification

Please replace the paragraph beginning on page 15, line 16, through line 27 with the following rewritten paragraph:

Fig. 2(a) is an alignment chart showing the revolution speeds and rotating directions of the respective gears linked with the three shafts of the planetary gear 140. The revolution speeds of the sun gear 142, the ring gear 148, and the planetary carrier 146, that is, the revolution speeds of the engine 200, the motor generator MG2, and the motor generator MG1, are plotted as ordinate, and the gear ratios of the respective gears 142, 148, and 146 are plotted as abscissa. A coordinate axis C corresponding to the planetary carrier 146 is given as a point internally dividing coordinate axes S and R of the sun gear 142 and the ring gear 148 at 1 to $\square p$, where $\square p$ denotes a ratio of the number of teeth of the sun gear 142 to the number of teeth of the ring gear 148.

Please replace the paragraph beginning on page 17, line 5, through line 12 with the following rewritten paragraph:

The torque T_e is applied upward onto the operational line at the position of the coordinate axis C. The torque T_e is distributed to the coordinate axis S and the coordinate axis R as shown in Fig. 2(a). A torque division T_{es} acting on the coordinate axis S and a torque division T_{er} acting on the coordinate axis R are respectively expressed as:

$$\cancel{T_{es} = T_e \square / (1 + \square)} \quad (1) \quad \underline{T_{es} = T_e p / (1 + p)} \quad (1)$$

$$\cancel{T_{er} = T_e / (1 + \square)} \quad (2) \quad \underline{T_{er} = T_e / (1 + p)} \quad (2)$$

Please replace the paragraph beginning on page 18, line 5, through page 19, line 4 with the following rewritten paragraph:

As shown in the alignment chart of Fig. 2(a), the rotating direction of the motor generator MG1 is opposite to the direction of the torque T_{m1} on the coordinate axis S. This means that the motor generator MG1 functions as the generator. The rotating direction of the motor generator MG2 is identical with the direction of the torque T_{m2} on the coordinate axis R. This means that the motor generator MG2 functions as the motor. In the working conditions specified in the alignment chart of Fig. 2(a), the motor generator MG2 consumes electric power while the motor generator MG1 generates electric power. The working conditions of Fig. 2(a) are only illustrative. But there is a certain relation between the revolution speeds and the torques of the motor generators MG1 and MG2 specified by the operational line. In the general driving conditions, the motor generator MG2 just consumes the electric power generated by the motor generator MG1. The planetary gear 140 and the motor generators MG1 and MG2 accordingly have the functions of torque conversion. Here it is assumed that the combination of the torque T_r and the revolution speed N_r is to be output from the ring gear 148. The engine 200 is then to be driven with a combination of revolution speed and torque giving a power, which is equivalent to the required power (= revolution speed N_r \times torque T_r) $N_p \times$ torque T_r . The functions of the planetary gear 140 and the motor generators MG1 and MG2 convert the combination of the revolution speed and the torque of the engine 200 into the combination of the revolution speed N_r and the torque T_r , which is to be output from the ring gear 148. Here the power represents power or output energy per unit time.

Please replace the paragraph beginning on page 26, line 10, through line 26 with the following rewritten paragraph:

After determination of the vehicle torque demand Trq , the engine torque demand Tre is determined by the following procedure. The revolution speed of the ring gear 148 does not abruptly change from the current revolution speed Nr . The vehicle torque demand Trq indicates requirement of output of the power $Trq \cdot Nr$ from the ring gear 148. Namely output of the energy $Trq \cdot Nr$ per unit time is required. As described above with reference to Figs. 2(a) and 2(b), the planetary gear 140 and the motor generators MG1 and MG2 function to convert the output of the engine 200 and make the converted torque output from the ring gear 148. Output of the power $Trq \cdot Nr$ from the engine 200 is thus sufficient. The revolution speed of the engine 200 does not abruptly change from the current revolution speed Ne . In order to meet the requirement of output of the vehicle torque demand Trq from the ring gear 148, the engine 200 needs to output a torque $(Trq \cdot Nr) / Ne$. The engine torque demand Tre is thus calculated as:

$$Tre = (Trq \cdot Nr) / Ne \quad Tre = (Trqx Nr) / Ne$$